DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027401
Date Inspected: 04-Apr-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Job Site

CWI Name: Fred Von Hoff

Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Components

Summary of Items Observed:

On this date, Quality Assurance Inspector (QAI) Kenneth Riley was present at the San Francisco Oakland bay Bridge job site at Yerba Buena Island to fill in for Lead Inspector Danny Reyes. The welding activities for the San Francisco Oakland Bay Bridge (SFOBB) project work was being performed by American Bridge/Fluor Enterprises (AB/F) personnel. At the start of the shift this Quality Assurance Lead Inspector (QAI) observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) Quality Control (QC) personnel. The observations and inspections were performed as noted below:
This Quality Assurance Lead Inspector (QALI) assigned the QA Inspectors to the following, but not limited to the work station(s) listed, to observe the welding and the QC inspection of the following:

Joselito Lizardo-Tower, 9 and 13 Meter El. (Observed the welding, QC inspection of diaphragm plate to shear plate, drop-in plates and perimeter channels).
Doug Frey-OBG, 8E, 12E, Traveler support, CCO and Handrails in CB's (Observation of the welding, repair welding and QC inspection and testing of the deck access holes and "A" deck longitudinal stiffeners) and QA/NDE verification.

Dan Smith-Tower, 8W, 9E, 12W and Mechanical welding, (Observed the welding, QC inspection of diaphragm plate to shear plate, drop-in plates and perimeter channels).

Art Peterson-OBG review and inspection of punch list items pertaining to shipments 1-14 east and west OBG.

NOTE: See QA daily Weld Inspection Reports (WIR) and NDE reports for additional information and details.

WELDING INSPECTION REPORT

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Quality Assurance Lead Inspector (QALI) Summary

This QA Lead Inspector (QALI) observed the QA Inspector's Joselito Lizardo, Scott Croft, Doug Frey and Dan Smith monitor the work performed by the QC inspectors at random intervals and also observed the QA Inspectors verify the welding parameters, the minimum preheat and the maximum interpass temperatures for compliance with the contract specifications. The QAI's utilized a Fluke 337 clamp meter to measure the electrical welding parameters, Tempil Heat Indicators and/or a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. At the conclusion of the shift, this QA Lead Inspector discussed and reviewed the work performed by the QAI's in regards to the various observations and the verifications of the WPS's, consumables, welding parameters, preheat and interpass temperatures. The QAI observations of the QC inspection and verification of the welding parameters performed on this date appeared to comply with the contract specifications and no issues were noted.

This QALI documented the field tracking regarding the Orthotropic Box Girders (OBG, Longitudinal and Transverse "A" Deck Stiffeners, Deck Access Holes and the Tower Shear plates). Also, the completed review of the Deck Access Holes (DAH) for the East and West Bound OBG were submitted to the QA Supervisor William Levell and Structural Materials Representative (SMR) Bahjat Dagher.

This QAI observed that welder Jimmy Zhen was using the Shielded Metal Arc Welding (SMAW) process, with electrode E7018 for the Partial Joint Penetration weld in the flat (1G) position, with a 4.0mm electrode. The Welding Procedure Specification (WPS) used for this location was ABF-WPS-D15-1001-Repair with welding amps measured at 170. The pre-heat for this location was measured at 95 degrees C (200 degrees F) which were verified using a tempstik and infrared gun by the QC. The welder was also observed by this QAI as using a chipping hammer, power grinder and power wire wheel for the interpass cleaning. The location of the welding was the shear plate to diaphragm plate in the tower at 13 Meter elevation. The QC inspector for this location was Fred Von Hoff and was observed verifying and documenting the welding parameters for this location, along with overseeing the welding operations. At the time of the observations no issues were noted by the QAI.

Summary of Conversations:

Basic conservation, fundamental to completion of the tasks at hand, occurred between this QAI and ABF QC personnel.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Riley,Ken	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer